L6 ANSWER 5 OF 8 CA COPYRIGHT 2003 ACS
AN 132:205130 CA
TI Methods for generating doubled haploid plants from microspores
IN Konzak, Calvin F.; Polle, Enrique A.; Liu, Weiguo; Zheng, Yuanming
PA USA
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000014202	A1	20000316	WO 1999-US19498	19990826
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2342983	AA	20000316	CA 1999-2342983	19990826
	AU 9956932	A1	20000327	AU 1999-56932	19990826
	EP 1112347	A1	20010704	EP 1999-943940	19990826
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9913534	A	20020702	BR 1999-13534	19990826
	WO 2001014518	A2	20010301	WO 2000-US18790	20000823
	WO 2001014518	A3	20011018		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2000070518	A5	20010319	AU 2000-70518	20000823
	EP 1206524	A2	20020522	EP 2000-959147	20000823
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	US 2002104128	A1	20020801	US 2002-42932	20020108
PRAI	US 1998-99633P	P	19980909		
	US 1999-150761P	A2	19990826		
	US 1999-383588	A2	19990826		
	WO 1999-US19498	W	19990826		
	WO 2000-US18790	W	20000823		

US 6362393

AB The present invention provides methods for generating doubled haploid and/or haploid plants from microspores. In a presently preferred embodiment of the methods of the present invention, plant material is selected that bears reproductive organs contg. microspores at a developmental stage that is amenable to androgenic induction. The microspores are treated by contacting the selected plant material with water and subjecting the selected plant material to temp. stress, and optionally to nutrient stress. Preferably the selected plant material is contacted with an effective amt. of a sporophytic development inducer and an effective amt. of an auxin and/or **cell** spindle inhibiting agent. Optionally, the selected plant material is contacted with an effective amt. of a cytokinin and/or an effective amt. of a gibberellin. The treated microspores are isolated, preferably by d. centrifugation utilizing a soln. of 0.3 M mannitol layered over a higher d. soln. of a

sugar, preferably maltose. The isolated, treated microspores are then cultured in a liq. nutrient suspension medium supplemented with at least one plant ovary or with an aliquot of plant ovary conditioned medium, until the microspores develop into embryoids. The embryoids are transferred to a regeneration medium and incubated therein until the embryoids develop into plants. The resulting plants may be haploid or doubled haploid and may also be genetically transformed. Doubled haploid wheat plants were generated from microspores.

IC ICM C12N005-00
ICS C12N015-05; C12N015-82; A01H001-08; A01H004-00; A01H005-00

CC 9-11 (Biochemical Methods)
Section cross-reference(s): 3, 11

ST plant haploid microspore stress ovary culture; wheat haploid microspore plant culture medium

IT Stress, plant
(cold; generating doubled haploid plants from microspores)

IT Centrifugation
(d.-gradient; generating doubled haploid plants from microspores)

IT Growth and development, plant
(embryogenesis; generating doubled haploid plants from microspores)

IT Culture media
Embryo, plant
Transformation, genetic
(generating doubled haploid plants from microspores)

IT Auxins
Cytokinins
Gibberellins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(generating doubled haploid plants from microspores)

IT Plant (Embryophyta)
(haploid; generating doubled haploid plants from microspores)

IT Stress, plant
(heat; generating doubled haploid plants from microspores)

IT Pollen
(microspore; generating doubled haploid plants from microspores)

IT Organelle
(mitotic spindle, inhibiting agent for; generating doubled haploid plants from microspores)

IT Stress, plant
(nutrient; generating doubled haploid plants from microspores)

IT Wheat
(ovary of; generating doubled haploid plants from microspores)

IT Plant tissue culture
(ovary-conditioned medium; generating doubled haploid plants from microspores)

IT Flower
(ovary; generating doubled haploid plants from microspores)

IT Stress, plant
(temp.; generating doubled haploid plants from microspores)

IT Barley
(variety Igri, ovary of; generating doubled haploid plants from microspores)

IT 56-85-9, Glutamine, biological studies 58-56-0, Pyridoxine hydrochloride 59-67-6, Nicotinic acid, biological studies 67-03-8, Thiamine hydrochloride 87-89-8, Myo inositol 139-33-3 7487-88-9, Magnesium sulfate, biological studies 7631-95-0, Disodium molybdate 7646-79-9, Cobalt chloride (CoCl2), biological studies 7681-11-0, Potassium iodide, biological studies 7720-78-7, Ferrous sulfate 7733-02-0, Zinc sulfate 7757-79-1, Nitric acid potassium salt, biological studies 7758-98-7, Sulfuric acid copper(2+) salt (1:1), biological studies 7778-77-0, Potassium dihydrogen phosphate 7785-87-7, Manganese sulfate 10043-35-3, Boric acid (H3BO3), biological studies 10043-52-4, Calcium chloride, biological studies 10196-04-0, Ammonium sulfite

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture medium contg.; generating doubled haploid plants from microspores)

IT 51-35-4, Hydroxyproline 52-67-5, Penicillamine 54-21-7, Sodium salicylate 54-85-3, Isonicotinic hydrazide 56-40-6, Glycine, biological studies 57-71-6 62-56-6, Thiourea, biological studies 65-45-2, Salicyl amide 65-71-4, Thymine 69-72-7, Salicylic acid, biological studies 69-89-6, Xanthine 87-39-8, Violuric acid 88-82-4, 2,3,5-Triiodobenzoic acid 89-00-9, 2,3-Pyridine dicarboxylic acid 89-73-6, Salicyl hydroxamic acid 90-02-8, Salicyl aldehyde, biological studies 93-10-7, Quinaldic acid 94-67-7, Salicyl aldoxime 94-75-7, 2,4-Dichlorophenoxyacetic acid, biological studies 95-14-7, 1H-Benzotriazole 95-45-4, 2,3-Butanedione dioxime 98-98-6, Picolinic acid 100-26-5, 2,5-Pyridine dicarboxylic acid 109-09-1, 2-Chloro pyridine 118-92-3, Anthranilic acid 120-36-5, 2-(2,4-Dichlorophenoxy)propionic acid 133-90-4, Amiben 135-20-6, Cupferron 138-52-3, Salicin 142-08-5, 2-Hydroxypyridine 147-84-2, biological studies 151-01-9, Ethyl xanthic acid 315-30-0, 4-Hydroxypyrazolo[3,4-d]pyrimidine 366-18-7, 2,2'-Dipyridyl 441-38-3, .alpha.-Benzoin oxime 499-80-9, 2,4-Pyridine dicarboxylic acid 499-83-2, 2,6-Pyridinedicarboxylic acid 525-79-1, Kinetin 536-69-6, Fusaric acid 557-01-7, 2-Hydroxypyrimidine 600-32-8, .alpha.,.beta.-Dichlorobutyric acid 607-87-4 609-71-2, 2-Hydroxynicotinic acid 620-24-6, 3-Hydroxy benzyl alcohol 623-12-1, 4-Chloro anisole 874-24-8, 3-Hydroxypicolinic acid 882-09-7, 2-(4-Chlorophenoxy)-2-methylpropionic acid 936-02-7, Salicyl hydrazide 1071-83-6, Glyphosate 1202-34-2, 2,2'-Dipyridylamine 1762-95-4, Ammonium thiocyanate 1829-32-9, 3-Chlorosalicylic acid 1918-02-1 1984-59-4, 2,3-Dichloroanisole 2459-07-6 2942-59-8, 2-Chloronicotinic acid 3167-49-5, 6-Aminonicotinic acid 4998-57-6, Histidine 5006-66-6, 6-Hydroxynicotinic acid 5106-98-9, 4-Chlorosalicylic acid 5326-23-8, 6-Chloronicotinic acid 5345-47-1, 2-Aminonicotinic acid 5348-51-6, 2-Hydroxy-4-methylpyrimidine hydrochloride 5750-76-5, 2,4,5-Trichloropyrimidine 6332-56-5, 2-Hydroxy-3-nitropyridine **13161-30-3**, 2-Hydroxy pyridine-N-oxide 16672-87-0, 2-Chloroethylphosphonic acid 16867-04-2, 2,3-Dihydroxypyridine 19340-26-2 19437-26-4, Di-2-pyridyl ketone 20636-41-3 23945-44-0, 2,4-Dihydroxypyrimidine-5-carboxylic acid 23950-58-5, Pronamide 60932-58-3, 1H-Benzotriazolecarboxylic acid
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(generating doubled haploid plants from microspores)

IT 69-79-4, Maltose
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(in d.-gradient centrifugation of stressed microspores; generating doubled haploid plants from microspores)

IT 69-65-8, Mannitol
RL: NUU (Other use, unclassified); USES (Uses)
(in d.-gradient centrifugation of stressed microspores; generating doubled haploid plants from microspores)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 8 CA COPYRIGHT 2003 ACS
AN 137:275350 CA
TI Culture medium for **cell** growth and transfection
IN Ciccarone, Valentina; Gruber, Dale; Bennett, Shelly
PA Invitrogen Corporation, USA
SO PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002077202	A1	20021003	WO 2002-US9183	20020327

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-278754P P 20010327

AB The invention concerns **cell** culture media (particularly serum free, non animal derived, and/or chem. defined media) which are useful for introducing macromols. and compds. (e.g., nucleic acid mols.) into **cells** (e.g., eukaryotic **cells**). According to the invention, such introduction can take place in the presence of said medium. **Cells** contg. such introduced materials can then be cultured in the medium and the effect of the introduced materials on the **cells** can be measured or detd. In particular, the invention allows introduction of nucleic acid mols. (e.g., vectors) into **cells** (particularly eukaryotic **cells**) and expression of proteins encoded by the nucleic acid mols. in the **cells**. The invention obviates the need to change the **cell** culture medium each time a different procedure is performed with the **cells** (e.g., culturing **cells** vs. transfecting **cells**). The invention thus provides efficient and high throughput methods to transform/transfect culture and **cells** avoiding the need for multiple manipulations and transfers of **cells** during transfection and expression studies. The invention also relates to compns. and kits useful for culturing and transforming/transfecting **cells**.

IC ICM C12N001-00
ICS C12N005-00
CC 9-11 (Biochemical Methods)
Section cross-reference(s): 3
ST **cell** culture medium proliferation transfection protein expression
IT Animal **cell** line
(293; culture medium for **cell** growth and transfection)
IT Animal **cell** line
(BHK; culture medium for **cell** growth and transfection)
IT Animal **cell** line
(CHO; culture medium for **cell** growth and transfection)
IT Animal **cell** line
(COS; culture medium for **cell** growth and transfection)
IT Chelating agents
(IRC011; culture medium for **cell** growth and transfection)
IT Animal **cell** line
(PER-C6; culture medium for **cell** growth and transfection)
IT Animal **cell** line
(Sp2/0; culture medium for **cell** growth and transfection)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; culture medium for **cell** growth and transfection)
IT Membrane potential
(biol.; culture medium for **cell** growth and transfection)
IT Amphibia
Animal **cell**
Animal tissue culture
Aves
Buffers
Catalysis
Cell proliferation
Culture media
Epithelium
Eukaryota
Fish
Genetic vectors
Glycolysis
HeLa **cell**
Insecta
Mammalia
Osmolarity
Plant **cell**
Surfactants
Transformation, genetic
(culture medium for **cell** growth and transfection)
IT Proteins
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(culture medium for **cell** growth and transfection)
IT DNA
Nucleic acids
Peptides, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(culture medium for **cell** growth and transfection)
IT Amines, biological studies
Amino acids, biological studies
Carbohydrates, biological studies
Coenzymes
Cycloalkanols
Fatty acids, biological studies
Flavins
Glycosaminoglycans, biological studies
Growth factors, animal
Hormones, animal, biological studies
Lipids, biological studies
Nucleotides, biological studies
Phospholipids, biological studies
Polysaccharides, biological studies
Salts, biological studies
Trace metals
Vitamins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture medium for **cell** growth and transfection)
IT Cations
(divalent; culture medium for **cell** growth and transfection)
IT Apparatus
(kits; culture medium for **cell** growth and transfection)
IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(polycarboxylic acid esters, culture medium for **cell** growth and transfection)

IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(polyhydric; culture medium for **cell** growth and transfection)

IT Cations
(trivalent; culture medium for **cell** growth and transfection)

IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.-hydroxy derivs., culture medium for **cell** growth and transfection)

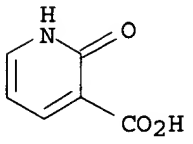
IT 56-87-1D, L-Lysine, reaction product with DOTA 67-43-6, Diethylenetriaminepentaacetic acid 70-51-9, Deferoxamine 82-82-6, 4-Pyridoxic acid 91-18-9D, Pteridine, derivs. 98-98-6, Picolinic acid 101-60-0, Porphine 109-52-4, Valeric acid, biological studies 139-13-9D, Nitrilotriacetic acid, 2,2'-bipyridine derivs. 299-29-6, Ferrous gluconate 463-77-4D, Carbamic acid, polyethylene derivs. 496-63-9, 3-Hydroxy-4-pyrone 546-88-3, Acetohydroxamic acid 609-71-2, 2-Hydroxynicotinic acid 737-86-0 822-89-9, 1-Hydroxypyrid-2-one 1121-23-9, 3-Hydroxypyrid-4-one 1429-50-1 2398-81-4, Nicotinic acid-N-oxide 4940-11-8, Ethyl maltol 7733-02-0, Zinc sulfate 7783-00-8D, Selenious acid, salt 7803-49-8D, Hydroxylamine, derivs. **13161-30-3**, 2-**Hydroxypyridine**-N-**oxide** 14836-73-8, Ferrioxamine 15630-64-5, Ferrichrome 16867-04-2, 3-Hydroxypyrid-2-one 19365-01-6, 1-Methyl-3-hydroxypyrid-2-one 27341-45-3D, Hydroxypyridine, derivs. 30652-11-0, 1,2-Dimethyl-3-hydroxypyrid-4-one 60239-18-1D, DOTA, reaction product with lysine 69146-59-4 134020-79-4, Sapphyrin 147219-26-9, Trisuccin 189752-49-6, Texaphyrin 344612-27-7, LIPOFECTAMINE 2000
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(culture medium for **cell** growth and transfection)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> 2-hydroxynicotinic acid/cn
L306 1 2-HYDROXYNICOTINIC ACID/CN

=> d

L306 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 609-71-2 REGISTRY
CN 3-Pyridinecarboxylic acid, 1,2-dihydro-2-oxo- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Nicotinic acid, 1,2-dihydro-2-oxo- (6CI, 7CI)
OTHER NAMES:
CN 1,2-Dihydro-2-oxo-3-pyridinecarboxylic acid
CN 1,2-Dihydro-2-oxonicotinic acid
CN 2-Hydroxy-3-carboxypyridine
CN **2-Hydroxynicotinic acid**
CN 2-Hydroxypyridine-3-carboxylic acid
CN 3-Carboxy-2-pyridone
FS 3D CONCORD
MF C6 H5 N O3
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

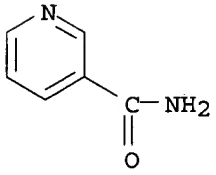
205 REFERENCES IN FILE CA (1962 TO DATE)
17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
206 REFERENCES IN FILE CAPLUS (1962 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s nicotinamide/cn
L307 1 NICOTINAMIDE/CN

=> d

L307 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 98-92-0 REGISTRY
CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **Nicotinamide (8CI)**
OTHER NAMES:
CN .beta.-Pyridinecarboxamide
CN 3-(Aminocarbonyl)pyridine
CN 3-Amidopyridine
CN 3-Carbamoylpyridine
CN 3-Pyridinecarboxylic acid amide
CN Aminicotin
CN Benicot
CN Delonin Amide

CN Dipegyl
CN m-(Aminocarbonyl)pyridine
CN NAM
CN Niacinamide
CN Niavit PP
CN Nicamina
CN Nicamindon
CN Nicasir
CN Nicobion
CN Nicofort
CN Nicosan 2
CN Nicosylamide
CN Nicotilamide
CN Nicotine acid amide
CN Nicotinic acid amide
CN Nicotinic amide
CN Nicotylamide
CN Nicovit
CN Nicovitina
CN Nictoamide
CN Niocinamide
CN Niozymin
CN Papulex
CN Pelmin
CN Pelmine
CN Pelonin amide
CN Vi-Nicotyl
CN Vitamin B
CN Vitamin B3
FS 3D CONCORD
DR 123574-63-0, 37321-14-5, 78731-47-2
MF C6 H6 N2 O
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6239 REFERENCES IN FILE CA (1962 TO DATE)
265 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
6252 REFERENCES IN FILE CAPLUS (1962 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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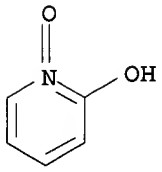
=> d 13

L13 ANSWER 13 OF 13 REGISTRY COPYRIGHT 2002 ACS
RN 13161-30-3 REGISTRY
CN **2-Pyridinol, 1-oxide (6CI, 7CI, 8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN **2-Hydroxypyridine 1-oxide**
CN **2-Hydroxypyridine N-oxide**
FS 3D CONCORD
MF C5 H5 N O2
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CSCHEM, HODOC*, IFICDB, IFIPAT, IFIUDB, TOXCENTER, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)



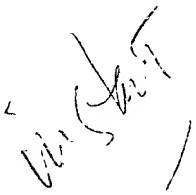
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

55 REFERENCES IN FILE CA (1967 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
55 REFERENCES IN FILE CAPLUS (1967 TO DATE)
8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 3 OF 8 CA COPYRIGHT 2003 ACS
AN 134:204751 CA
TI Metal binding compounds and their use in **cell** culture medium compositions
IN Epstein, David A.; Battista, Paul; Gruber, Dale; Judd, David
PA Life Technologies, Inc., USA
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001016294	A2	20010308	WO 2000-US23580	20000828
	WO 2001016294	A3	20010907		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1210410	A2	20020605	EP 2000-959504	20000828
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI	US 1999-151055P	P	19990827		
	WO 2000-US23580	W	20000828		

AB The present invention is directed generally to metal binding compds. which may be added to **cell** culture media to replace factors required for cultivation of the **cells** (e.g. transferrin) which are of animal or human origin. More specifically, the invention is directed to metal binding compds. or complexes thereof comprising one or more transition element cations (such as ferrous or ferric ions), which are added to **cell** and tissue culture medium compns. The metal binding compds. may be added to the media alone or may be first complexed with a transition metal ion. The invention is also directed to methods of use of such compns., including, for example, methods for the cultivation of eukaryotic **cells**, particularly animal **cells**, in vitro. The invention also relates to compns. comprising such culture media and one or more **cells**, and to kits comprising one or more of the above-described compns. The compns. of the present invention obviate the need for naturally derived metal-binding proteins, such as transferrin and ceruloplasmin, which may contain blood-borne pathogens.



L6 ANSWER 4 OF 8 CA COPYRIGHT 2003 ACS
AN 133:290309 CA
TI New insulin-mimetic zinc (II) complexes; bis-maltolato zinc(II) and Bis-2-hydroxypyridine-N-oxido zinc(II) with Zn(O4) coordination mode
AU Yoshikawa, Yutaka; Ueda, Eriko; Kawabe, Kenji; Miyake, Hiroyuki; Sakurai, Hiromu; Kojima, Yoshitane
CS Department of Chemistry, Graduate School of Science, Osaka City University, Osaka, 558-8585, Japan
SO Chemistry Letters (2000), (8), 874-875
CODEN: CMLTAG; ISSN: 0366-7022
PB Chemical Society of Japan
DT Journal
LA English
AB Zn(II) complexes with a Zn(O4) coordination mode have insulinomimetic activity. A bis-maltolato Zn(II) (Zn(Mal)2) complex was revealed to be in an octahedral and a square pyramidal geometries in a unit **cell**. Both Zn(Mal)2 (IC50 = 0.59 mM) and bis-2-**hydroxypyridine**-N-**oxide** Zn(II) (IC50 = 0.41 mM) complexes exhibited higher insulinomimetic activity than VOSO4(IC50 = 1.00 mM) and ZnSO4(IC50 = 0.81 mM) in terms of IC50 values, which show 50% inhibition concn. of the complex in the free fatty acids release from rat adipocytes.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L305 ANSWER 77 OF 145 MEDLINE
AN 91248322 MEDLINE
DN 91248322 PubMed ID: 2095129
TI **Chelators** affecting iron absorption in mice.
AU Kontoghiorghes G J
CS Department of Haematology, Royal Free Hospital School of Medicine, London, UK.
SO ARZNEIMITTEL-FORSCHUNG, (1990 Dec) 40 (12) 1332-5.
Journal code: 0372660. ISSN: 0004-4172.
CY GERMANY: Germany, Federal Republic of
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199107
ED Entered STN: 19910719
Last Updated on STN: 19980206
Entered Medline: 19910702
AB The effect of natural and synthetic **chelators** on iron (59Fe) absorption in mice has been studied in three different experiments using single or repeated intragastric administrations of **chelator** iron (59Fe) **complexes** of different **chelator** doses. The amount of 59Fe in whole animals, their excretions and also distribution of 59Fe in blood, liver, spleen and heart was measured at one, three and eight weeks following the 59Fe-**chelator** administrations and compared to controls which received the same amount of iron (59Fe) but no **chelator**. 2-Hydroxy-4-methoxypyridine-1-oxide and maltol, which form lipophilic iron **complexes**, were found to cause an increase of 59Fe absorption while other **chelators** caused a decrease either by precipitating iron eg. 2-**hydroxypyridine**-1-**oxide** or by forming non absorbable soluble iron **complexes** eg. desferrioxamine, mimosine, EDTA. 1,2-Dimethyl-3-hydroxypyrid-4-one caused a decrease in iron absorption at a high dose (10 mg) by comparison to the control group but it did not significantly alter iron absorption at a lower dose (2 mg). It is suggested that natural and synthetic iron chelating compounds influence the absorption of iron and some may have a use in the treatment of diseases associated with gastro-intestinal iron absorption imbalance.